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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/805,337

03/22/2004

Norbert Stadele

STADELE2

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EXAMINER

MUSSER, BARBARA J

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

03/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/805,337	Applicant(s) STADELE, NORBERT	
	Examiner BARBARA J. MUSSER	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 2/25/08.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 9-12 is/are pending in the application.
- 4a) Of the above claim(s) 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9, 11 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/25/08 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 9, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alden(WO 2004/041541A1) in view of Welschlau(US Patent 4,587,898) as evidenced by Spann, and further in view of Lewis, Jr. et al.(U.S. Publication 2004/0163562) and Pers(US Patent 5,365,847)

Alden discloses a method of printed corrugated board wherein pre-formed sheets of corrugated board are printed using an ink-jet printer, and cut in accordance with the printed design.(Abstract; Pg. 2, ll. 26-27) The reference does not disclose this process being part of in-line formation the corrugated web. Welschlau discloses forming a

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corrugated board by printing on a continuous web, joining the web with a corrugated web, and cutting the formed corrugated product.(Figure 1; Col. 6, ll. 4-12) It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the process of Alden inline wherein the corrugated board is formed and then printed and cut since Welschlau discloses forming and cutting a corrugated web in an inline process and since this would allow continuous formation of the product. While Alden does not disclose the printer is a digital printer, Spann is cited to show that an ink jet printer is considered a digital dot matrix printer.(Col. 1, ll. 13-15) Thus the ink jet printer of Alden is considered a digital printing process.

The references cited above do not disclose a method to determine the shrinkage of the corrugated board or a method of determining scaling factors. Lewis, Jr. et al. discloses placing marks on the paper at an upstream location and measuring their spacing at a downstream location to determine the amount of shrinkage or web growth in two dimensions([0093],[0289]) indicating the presence of marks in both dimensions. The reference discloses measuring the distance between a hole and a mark and correcting so that the correct position is maintained between the hole and the mark.[0143] This system can be used for printing as well as die cutting.(Abstract) The reference does not disclose specifically how this correction takes place. Pers discloses a control system for a printing press wherein changes in width of the web downstream result in modification of the printed image upstream.(Col. 3, ll. 58-61) While the reference does not explicitly state the printed image is altered by scaling, one in the art would appreciate that since the reference is disclosing the expansion of the web and the

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desire of all the printed colors to align, the modification to the printed image is a scaling of the image. While the reference discloses modifying printers other than the first printer, one in the art would appreciate that printing can be modified more easily than a set die cutter. It would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the shrinkage or expansion of the corrugated board by placing marks on the board and measuring their spacing downstream to determine scaling factors and to determine the image size based on the scaling factors so that the final image is the desired size and everything is in registry since Lewis, Jr. et al. discloses using marks to determine the amount of shrinkage or growth in the web so that the image can be altered, and suggests using these marks and the same concept for die-cutting so that all the processes including die-cutting are in registry(Abstract) and since Pers discloses that corrections are made to the images by modifying the printing based on changes in the web size, indicating the size of the printed images is modified, and since one in the art would appreciate that printing stations can be altered more easily than set die cutters so rather than altering the die cutting, the printing would be modified to match the die cutting.

Regarding claim 11, Alden discloses printing after forming the corrugated web.

Regarding claim 12, Lewis, Jr. et al. disclose marks which are in two dimensional and are parallel and perpendicular to the web.(Figure 9)

Response to Arguments

4. Applicant's arguments filed 6/22/07 have been fully considered but they are not persuasive.

Regarding applicant's argument that Alden and Welschlau are from different arts and thus would not be combined, both are directed to printing on corrugated board.

Regarding applicant's argument that Welschlau does not address the concept of scaling factors, Lewis, Jr. et al. and Pers suggest the modification of the printing based on changes to the paper size.

Regarding applicant's argument that Welschlau does not disclose digital printing, Alden does.

Regarding applicant's argument that examiner is replacing the digital printer of Alden with the rotary printer of Welschlau, examiner is using Welschlau to show it is known to form corrugated board and print on it, thus suggesting making the corrugated board in Alden and printing on it, not taking the process of Welschlau wholesale into Alden.

Regarding applicant's argument that Alden does not use a heater so there would be no shrinkage, applicant's claim does not require a heater, only that a change in size of the image can occur from one step to the next. This can be due to humidity in the room, expansion of the faceboard due to the ink, stretching of the board as it passes through the process as well as the use of a heater and all of these could cause a change in the image size between one step and the next as shown by Lewis, Jr. et al. and Pers. Pers specifically discloses that fan-out, i.e. web expansion, can occur due to moisture absorbed by the web, stretch, tension, and ink formulation.(Col. 3, ll. 3-14)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BARBARA J. MUSSEY whose telephone number is (571)272-1222. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571)-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BJM
/B. J. M./
Examiner, Art Unit 1791

/Richard Crispino/
Supervisory Patent Examiner, Art Unit 1791